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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09.942,306	08/29/2001	Dennis R. Barringer	POU920010111US1	6669

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EXAMINER

NGUYEN, TRUC T

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 07.03.2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/942,306

Applicant(s)

BARRINGER ET AL

Examiner

Truc T. T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 18 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213

### Disposition of Claims

- 4) ☐ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.65(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki et al (US 6,288,911) and Sasaki (US 5,329,422).

Regarding claims 1-3, Aoki et al disclose a circuit board assembly comprising:

a printed circuit board (15) having an electrical connector disposed along an edge (not shown);

a metal stiffener (61).

Aoki et al do not disclose a nonconductive base.

Sasaki teaches a polymeric nonconductive base (4) supports the circuit board to prevent the board from bending.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a nonconductive base into Aoki et al's circuit board assembly, as taught by Sasaki to prevent the circuit board from bending.

Regarding claim 4, modified circuit board assembly of Aoki et al in view of Sasaki disclose the circuit board further includes electrical connectors (un-numbered, disposed inside the slot 17)

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Regarding claim 5, modified circuit board assembly of Aoki et al in view of Sasaki plurality guides having slots (17).

Regarding claim 6, modified circuit board assembly of Aoki et al in view of Sasaki the guides are affixed to the stiffener.

***Response to Arguments***

1. Applicant's arguments filed 4/18/2003 have been fully considered but they are not persuasive. Because:

In response to applicant's argument, on page 3, lines 13-15. The examiner respectfully disagrees. The applicant has never claim the claimed assembly are together as a single unit

In response to applicant's argument, on page 3, lines 15-17. The examiner respectfully disagrees. The applicant has never claim the stiffener acts to provide EMI shielding.

In response to applicant's argument, on page 3, lines 25-30. The examiner respectfully disagrees. Aoki et al's frame supports the circuit board and therefore it can acts like a stiffener.

In response to applicant's argument, on page 3, lines 30 to page 4, line 2. The examiner respectfully disagrees. Aoki stiffener as a whole including member 63 and member 61. Apparently, the member 63 is substantially coextensive with the printed circuit board (see Figure 7A)

In response to applicant's argument, on page 4, lines 6-8. The examiner respectfully disagrees. The applicant fails to claim the printed circuit board assembly, when populated with printed circuit cards, is insertable/removable with respect to a frame, such as computer or cabinet frame. The examiner interprets Aoki et al's printed circuit board assembly including the printed

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circuit board and the frame. Apparently, Aoki et al's stiffener member is substantially coextensive with the printed circuit board and is insertable/removable when it is populated with printed circuit cards.

In response to applicant's argument, on page 4, lines 15 to page 5, line 31. The examiner respectfully disagrees. A 35 U.S.C. 103(a) rejection can not be attacked by attacking each reference individually where the rejections are based on combinations of references. *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Sasaki teaches a nonconductive base which support the printed circuit board. The examiner only uses the teaching of Sasaki to modify Aoki et al's printed circuit board assembly.

In response to applicant's argument, on page 6, lines 4-24. the examiner respectfully disagrees. The applicant has never claim a plugable boards. The applicant only claims "a" printed circuit board assembly and further never claims what the assembly is "plugable into".

### ***Conclusion***

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T. T. Nguyen whose telephone number is 703-306-4004. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on 703-308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

T. Nguyen  
June 30, 2002

  
P. AUSTIN BRADLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800